

**STATE OF SOUTH CAROLINA**  
**BEFORE THE PUBLIC SERVICE COMMISSION**  
**DOCKET NO. 2019-184-E**

South Carolina Energy Freedom	)	
Act (H.3659) Proceeding to	)	
Establish Dominion Energy	)	<b>INTERVENORS JOHNSON</b>
South Carolina, LLC's	)	<b>DEVELOPMENT ASSOCIATES,</b>
Standard Offer	)	<b>INCORPORATED AND SOUTH CAROLINA</b>
Avoided Cost Methodologies,	)	<b>SOLAR BUSINESS ALLIANCE,</b>
Form Contract Power Purchase	)	<b>INCORPORATED'S PETITION FOR</b>
Agreements, Commitment to Sell	)	<b>RECONSIDERATION AND/OR</b>
Forms, and Any Other Terms or	)	<b>LIMITED REHEARING</b>
Conditions Necessary	)	
(Includes Small Power Producers	)	
as Defined in 16 United States	)	
Code 796, as Amended) - S.C. Code	)	
Ann. Section 58-41-20(A)	)	

Pursuant to S.C. Code Ann. § 58-27-2150, S.C. Code Ann. Regs. 103-802, 103-803, 103-825 and 103-854, and the South Carolina Rules of Civil Procedure, Intervenor Johnson Development Associates, Incorporated ("JDA") and South Carolina Solar Business Alliance ("SCSBA") (collectively, "Intervenors") respectfully petition the Public Service Commission of South Carolina ("Commission") for Reconsideration and/or Limited Rehearing of Order No. 2019-847, dated December 9, 2019 ("Order No. 2019-847" or "the Order"), pertaining to the Avoided Cost Rates, Calculations, Methodologies, and Terms and Conditions for Dominion Energy South Carolina ("DESC") approved in the above-referenced Docket. As Act 62 required it to do, the Commission carefully examined DESC's proposed avoided cost rates and methodologies, with the assistance of consultant Power Advisory LLC ("Power Advisory"). Intervenor appreciate the time and attention the Commission has devoted to the issues in this docket. However, with respect

to the following critical issues, intervenors respectfully submit that the Commission overlooked and misapprehended the evidence of record, and requests reconsideration:

1. The Commission's approval of an "interim value" of \$2.29/MWh for DESC's proposed Variable Integration Charge ("VIC") and Embedded Integration Charge ("EIC"), pending the outcome of an integration study, despite overwhelming evidence that the proposed "interim" charge does not accurately reflect the actual cost of integrating solar resources on DESC's system;
2. The Commission's failure to require DESC to proposed for review and Commission approval a set of mitigation measures before imposing a VIC or EIC on any project;
3. The Commission's approval, with minor modifications, of DESC's proposed avoided energy rates and methodologies, despite evidence strongly suggesting that DESC's methodology was unreliable and that its filings were not in compliance with the transparency requirements of Act 62;
4. The Commission's rejection of SBA's proposed alternative for technology-neutral avoided energy rates, which rejection was premised on a misunderstanding of Power Advisory's recommendations concerning technology-neutral rates;
5. The Commission's approval of a capacity value of 4% as proposed by DESC and recommended by Power Advisory, instead of the 11.8% capacity value recommended by ORS. and
6. The Commission's rejection of Intervenors' proposals for power purchase agreements with a duration of longer than ten years.

Solely with respect to the last issue (Intervenors' proposals for contracts with a duration of longer than ten years), if the Commission denies reconsideration Intervenors request limited rehearing so that the parties may introduce additional evidence.

As discussed more fully below, the net result of the Commission's Order is the approval of avoided cost rates for DESC that are among the lowest in the nation, and almost 30% lower than the (already low) avoided cost rates approved by the Commission for Duke Energy Carolinas ("DEC") and Duke Energy Progress ("DEP") (collectively, "Duke"). Based on the uncontested evidence in the record, the rates approved by the Commission will be too low to allow the construction of **any** more utility-scale solar projects in DESC's South Carolina service territory, so long as those avoided cost rates are in effect. This is contrary to the central purpose of Act 62 and, Intervenors submit, against the interest of ratepayers.

The Intervenors maintain that the clear intent of Act 62 has not been satisfied by the Commission's Order in this proceeding, particularly as it relates to South Carolina's expressed policy of encouraging the development of renewable energy, the requirement to consider *both* the cost and benefits of renewable energy to all customers, the directive to reduce the risk placed on the using and consuming public, the requirement to treat small power producers ("SPPs") in a nondiscriminatory manner and to place them on fair and equal footing with the state's investor owned utilities, and the requirement of transparency in utilities' avoided cost filings.

The responsible development of solar energy in South Carolina advances consumer preference, increases consumer choice, shields ratepayers from the inherent risks associated with utility-owned generation and investments, promotes local economic development, and furthers the goals of Act 62. The Commission's Order in this proceeding, as it relates to avoided cost rates and contract tenor, puts an emphatic end to additional large-scale solar investment in DESC's service

territory, and thus, also to the benefits of solar development that would otherwise accrue to ratepayers and South Carolina, as envisioned by the General Assembly. The Order does so without once discussing the benefits of solar energy for ratepayers.<sup>1</sup>

## **I. BACKGROUND**

### **A. Applicable Law**

Pursuant to S.C. Code Ann. § 58-27-2150, a party may apply to the Commission for a rehearing in respect to any matter determined in the proceeding. “The purpose of a petition for rehearing and/or reconsideration is to allow the Commission the discretion to rehear and/or reexamine the merits of issued orders pursuant to legal or factual questions raised about those orders by parties in interest, prior to a possible appeal.” *In re: South Carolina Electric & Gas Company*, Order No. 2013-05 (Feb. 14, 2013). S.C. Code Ann. Regs. § 103-825(A)(4) provides that a Petition for Rehearing or Reconsideration shall set forth clearly and concisely: (a) The factual and legal issues forming the basis for the petition; (b) The alleged error or errors in the Commission order; (c) The statutory provision or other authority upon which the petition is based.

All decisions of the Commission must be supported by substantial evidence in the record. *See Kiawah Property Owners Group v. Public Service Comm'n of S.C.*, 357 S.C. 232, 593 S.E.2d 148, 151 (2004). Substantial evidence is relevant evidence that, considering the record as a whole, a reasonable mind would accept to support an administrative agency's action. The Commission must fully document its findings of fact and base its decision on reliable, probative, and substantial evidence on the whole record. *Id.* The Commission has a heightened duty to make "explicit

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<sup>1</sup> It could be argued that the one exception to this is the Commission’s claim that residential customers with rooftop solar will be paid 12% more for the energy they generate (Order at 5). This is incorrect, however. Residential net metering customers are credited at the retail rate for all energy they generate. This 12% increase in the value of Net Energy Metered resources is solely an accounting metric that implicates how DESC recovers its cost from all customers, and has no effect on the rate paid to net metering customers.

findings of fact which allow meaningful appellate review of these complex issues." *Seabrook Island Property Owners Assn v. South Carolina Public Service Comm.*, 401 S.E.2d 672, at 674; 303 S.C. 493, at 497 (1991).

This avoided cost proceeding is conducted pursuant to the Energy Freedom Act, as codified by Act No. 62 of 2019 ("Act 62"). Act 62 calls on this Commission to consider and approve "each electrical utility's standard offer, avoided cost methodologies, form contract power purchase agreements, commitment to sell forms, and any other terms or conditions necessary to implement" S.C. Code Ann. § 58-41-20. The Act requires, among other things, that rates for the purchase of energy and capacity from QFs "fully *and accurately* reflect the electrical utility's avoided costs." S.C. Code Ann. § 58-41-20(B) (emphasis added). As in all cases related to the approval of rates, the utility bears the ultimate burden of persuasion that its proposed rates meet the requirements of Act 62 and PURPA. *See generally Utilities Servs. S.C., Inc. v. S.C. Office of Regulatory Staff*, 392 S.C. 96, 106, 708 S.E.2d 755, 761 (2011). Any decisions by the Commission on avoided cost issues shall be just and reasonable to the ratepayers of the electrical utility, in the public interest, consistent with PURPA and the Federal Energy Regulatory Commission's implementing regulations and orders, and nondiscriminatory to small power producers; and shall strive to reduce the risk placed on the using and consuming public. S.C. Code Ann. § 58-41-20(A).

In recognition of difficulties that intervenors have had in evaluating utilities' avoided cost calculations in past proceedings, Act 62 requires, for the first time, that "Each electrical utility's avoided cost filing must be reasonably transparent so that underlying assumptions, data, and results can be independently reviewed and verified by the parties and the commission." *Id.* § 58-41-20(J). Act 62 also mandated that the Commission retain an independent consultant to verify the transparency and accuracy of the data and filings made by the applicant. S.C. Code Ann. § 58-41-

20(I). The opinion of that third-party as to the transparency, or lack thereof, must be considered by the Commission in its approval or disapproval of the filings made by the Applicant. *Id.*

### **B. The Commission's Order**

In Order No. 2019-847, the Commission rightly rejected many aspects of DESC's avoided cost methodologies, calculations, and proposed rates, but inappropriately accepted others.<sup>2</sup> With respect to the issues of relevance to this Petition, the Order set forth the following rulings:

1. With respect to DESC's proposal to impose a Variable Integration Charge ("VIC") on existing solar projects and an "Embedded Integration Charge" on new projects, the Commission:
  - a. Rejected both the EIC and the VIC as methodologically unsound and unsupported by evidence;
  - b. Ordered the initiation of an integration study in accordance with S.C. Code Ann. § 58-37-60 in DESC's balancing area; and
  - c. Set an "interim" VIC and EIC of \$2.29/MWh, as proposed by the Office of Regulatory Staff ("ORS"),
2. With respect to avoided energy costs, the Commission rejected DESC's proposal to include an embedded EIC in its avoided energy cost calculations, but otherwise approved DESC's proposed rates and methodologies.
3. With respect to avoided capacity costs, the Commission rejected DESC's proposed assignment of zero capacity value to solar, and directed DESC to calculate a revised capacity value using the ELCC methodology. However, the Commission approved of

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<sup>2</sup> The Commission also ruled on DESC's proposed contract terms and conditions for Qualifying Facilities (QFs) as well as DESC's proposed Notice of Commitment Form. Intervenor do not seek reconsideration of those aspects of Order No. 2019-847 and do not discuss them here.

DESC's proposal to calculate its ELCC value based on the amount of solar under contract, rather than in operation.

4. The Commission rejected Intervenors' conceptual proposals for Power Purchase Agreements ("PPAs") with durations longer than ten years, pursuant to S.C. Code Ann. § 58-41-20(F)(1), finding that Intervenors were obligated to, but did not, enter those proposals into evidence.

There are several specific issues, discussed below, on which the Commission missed or misapprehended the evidence, such that reconsideration is warranted. However, Intervenors believe that at a high level the Commission's Order fails to heed the core directives of Act 62.

In its introduction, the Commission claims that the avoided cost rates set in this Order are "priced very favorably to ratepayers compared to historical experience; therefore, the risk of overpayment by the ratepayer is less likely." Order 2019-847 at 6. This statement implies that the intent of Act 62 was to *reduce* avoided cost rates below where they have been in the recent past due to historical experience that has resulted in alleged harm to ratepayers. There is neither legal nor factual support for this claim in the record of this case. And the implication that the Commission should approve avoided cost rates that are priced "very favorably for ratepayers" rather than accurately reflecting DESC's avoided costs is contrary to federal law. *See* 18 C.F.R. § 292.304. In fact, the recent historical experience with DESC's previously approved avoided cost rates has been to eliminate the expansion of solar in South Carolina, which is exactly the situation the Generally Assembly sought to remedy with the passage of Act 62.

Unfortunately, the Order also completely fails to grapple with the abundant evidence presented by Intervenors related to the countervailing risk of utility-owned generation, as well as the express requirement within the statute that the Commission consider risk to ratepayers, which

is nowhere limited to a risk of overpayment to SPPs. Indeed, as this Commission is aware from Intervenor testimony and firsthand experience, Act 62 was adopted in the wake of the multibillion-dollar nuclear abandonments and the coal ash management debacles that will saddle South Carolina's utility customers with billions of dollars in "overpayments" for decades to come. Likewise, the Commission has failed to recognize or weigh the risk of gas price volatility and its potential to negatively impact customers, where the "historical experience" has actually been documented by Intervenors in this proceeding. Tr. Vol. 2 at 544.10 (Davis Direct).

Intervenors are concerned that in its zeal to protect ratepayers from the risk of "overpayment," the Commission has only succeeded in eliminating solar as a risk-hedge for ratepayers while further exposing them to the substantially larger risks associated with utility-owned generation that the General Assembly sought to mitigate with the unanimous adoption of Act 62.

Also of note, Commissioner Ervin authored a Concurring Opinion in which he cites evidence presented in the Duke avoided cost docket, relating to a supposed "\$2.02 billion" overpayment to solar developers in North Carolina stemming from past PURPA contracts. The Concurrence fails to note that ORS Witness Horii testified that this "overpayment" figure was unreliable, and SCSBA Witness Davis testified to the fact that this "overpayment" argument from Duke was also dismissed by the General Assembly during negotiations surrounding Act 62.<sup>3</sup>

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<sup>3</sup> Intervenors are compelled to raise a number of concerns regarding Commissioner Ervin's Concurrence, which reveals a troubling criticism of PURPA, the preferred mechanism of the General Assembly to promote solar growth in South Carolina, as well as an apparent desire to emulate states like Tennessee, Alabama, Louisiana, and Mississippi, which have notoriously punitive solar policies that have failed to encourage any meaningful investment in solar energy. These states represent the antithesis of the General Assembly's goals for South Carolina. The "look to other states' approach" further offends the independence of the South Carolina General Assembly in enacting the *South Carolina* Energy Freedom Act. Had the General Assembly simply wanted to copy another state it would not have troubled itself with this legislative process. The Concurrence, as pointed out above, also misconstrues the basis for Georgia's and North Carolina's competitive solicitation programs, which is long-term avoided cost calculations used as a cap



Commissioner Williams also issued a Dissenting opinion noting that Act 62 was intended to create avenues for small power producers and reminded the Commission of the legislature's express intent to promote renewable energy, and opined that the terms proposed by JDA Witness Chilton of 15 years to 20 years was consistent with the Commission's own consultant's recommendation as to what is necessary to finance projects in South Carolina.

### **C. Impact of the Commission's Order on Solar Development in South Carolina**

As a consequence of DESC's exceedingly low avoided cost rates, which Intervenors argue herein were approved in violation of Act 62's transparency requirements, large scale solar projects sited within DESC service territory will not be financeable. The uncontested evidence in the record indicates that since the adoption of DESC's (then SCE&G's) avoided cost rates in spring of 2018, no solar QFs have signed PPAs with the Company at those rates (which are currently on appeal to the South Carolina Supreme Court). Intervenors certainly agree that there is little risk of overpayment from avoided cost rates set roughly 30% lower than DESC's previously approved, unfinanceable avoided cost rates, but disagree that this outcome reflects the will of the General Assembly and the intent of Act 62.

By comparison, Duke Energy's competitive procurement program for solar in North Carolina is resulting in 20-year contracts at about \$38 per MWh. Georgia's competitive procurement for solar is resulting in 30-year contracts at about \$36 per MWh. DESC's

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and then combined with long-term contracts that are resulting in higher contract rates and longer contract terms than are allowed by this Order.

Finally, Intervenors are confused by Commissioner Ervin's seeming distinction between "small solar QFs" and other "large solar projects" that he expects to "continue to lead our state" towards more renewable deployment. The Commission's Order in this docket impacts small and large QFs alike. The large scale solar developed to date in South Carolina and North Carolina, including Duke Energy's CPRE Program, is all QF solar. DESC and Duke Energy are not obligated to purchase – and have not purchased – output from solar QFs larger than 80 MW, which fall outside of the PURPA construct. Act 62 applies to all solar projects up to 80 MW, including the avoided cost rates and contract terms and conditions.

approximately \$21 per MWh avoided cost rate at ten years makes it both a regional outlier and a non-starter for solar financing.<sup>4</sup>

It is important to also recognize that even if significantly longer contract options were to be made available, DESC's currently approved avoided cost rates are not financeable. Power Advisory Report at 51. If the solar industry could build projects at those rates in the Southeast, then the Georgia and North Carolina competitive solicitation programs would be delivering projects at those costs.

## **II. PETITION FOR RECONSIDERATION AND/OR LIMITED REHEARING**

Intervenors respectfully submit that the Commission should partially reconsider the following aspects of Order No. 2019-847:

1. The Commission's approval of an "interim value" of \$2.29/MWh for the proposed VIC and EIC, pending the outcome of an integration study in DESC's balancing area conducted pursuant to S.C. Code Ann. § 58-37-60 (Order No. 2019-847 at 21), despite overwhelming evidence (which the Commission accepted) that the proposed "interim" charge does not accurately reflect the actual cost of integrating solar resources on DESC's system;
2. The Commission's failure to require DESC to proposed for review and Commission approval a set of mitigation measures before imposing a VIC or EIC on any project;
3. The Commission's approval, with minor modifications, of DESC's proposed avoided energy rates and methodologies, despite evidence (which the Commission failed to address) strongly suggesting that DESC's methodology was unreliable and that its

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<sup>4</sup> As discussed below, while lower avoided cost rates may exist elsewhere, those rates have not led to the development of renewable energy facilities in those jurisdictions.

filings were not in compliance with the transparency requirements of S.C. Code Ann. § 58-41-20(J) (Order No. 2019-847 at 22);

4. The Commission's rejection of SBA's proposed alternative for technology-neutral avoided energy rates, which rejection was premised on a misunderstanding of Power Advisory's recommendations concerning technology-neutral rates (Order No. 2019-847 at 48-49);
5. The Commission's approval of a capacity value of 4% as proposed by DESC and recommended by Power Advisory, instead of the 11.8% capacity value recommended by ORS (Order No. 2018-847 at 52);
6. The Commission's rejection of Intervenors' proposals (submitted in compliance with S.C. Code Ann. § 58-41-20-(F)(1)) for power purchase agreements with a duration of longer than ten years (Order No. 2019-847 at 66-67).

If the Commission declines to reconsider its rejection of Intervenors' proposals for PPA terms with a duration longer than ten years, Intervenors request, in the alternative, that the Commission grant limited rehearing and allow the presentation of additional evidence by the parties on that issue. Intervenors submit that rehearing would not be appropriate on any other issue, both because sufficient evidence exists in the record to justify the request for reconsideration, and also because it would be incredibly burdensome for Intervenors to re-litigate those issues at this time. As the Commission is aware, there are a number of Act 62-related dockets and other important proceedings that are or will soon be underway; Intervenors (unlike DESC, which can pass the costs of its legal fees on to ratepayers) lack the resources to litigate this case again. To impose the burden of a complete rehearing on the Intervenors would be inconsistent

with the directives of Act 62, one of which is the “fair and equal” treatment of small power producers in relation to investor-owned utilities.

#### **A. Avoided Energy Costs**

In its Order, the Commission issued a number of rulings on DESC’s proposed avoided energy rates, calculations, and methodologies. The Commission concluded generally that the use of the DRR methodology was reasonable. Order No. 2019-847 at 23. The Commission’s Order discussed only a handful of issues raised by the parties in relation to avoided energy rates proposed by DESC, including the following. The Commission inappropriately dismissed Intervenor’s concerns that the time periods selected by DESC were biased against solar QFs. *Id.* at 26. The Commission appropriately rejected DESC’s proposed embedded integration charge. *Id.* at 30. The Commission rejected SBA’s request that the Commission approve a single technology-neutral rate for all QFs rather than adopting DESC’s proposed solar-specific rate in addition to a separate, technology-neutral rate for all other QFs. *Id.* at 49.

Ultimately, the Commission approved DESC’s proposed avoided energy rate, with only one modification: rejecting the EIC and replacing it with an “interim” integration charge of \$2.29/MWh. For the Standard Offer, the Commission approved the avoided energy rates proposed by ORS (\$0.02112/MWh for 2020-2024 and 0.02375/MWh for 2025-2029). Order No. 2019-847 at 97.<sup>5</sup> According to ORS, those rates reflect DESC’s estimated solar avoided energy costs without additional operating reserves (i.e., the EIC), but inclusive of the \$2.29/MWh variable integration cost he recommends, all adjusted for line losses, working capital impacts, gross receipts taxes, and

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<sup>5</sup> The Commission also stated that it was approving ORS’s proposal to adjust avoided energy costs to reflect an incremental addition of 93 MW of QF capacity, rather than 100 MW. Order No. 2019-847 at 24. However, ORS only proposed to adjust avoided *capacity* costs to reflect a 93 MW increment; it did not propose to adjust avoided energy costs in this way and its proposed rates do not reflect such an adjustment. Tr. Vol. 2 at 697.40-41 (Horii Surrebuttal).

generation taxes. Tr. Vol. 2 at 697.6-7 (Horii Surrebuttal). The Commission's rationale for agreeing with ORS's proposal to reject the EIC and replace it with a \$2.29/MWh charge is reasonably clear (even if, as discussed above, the interim charge was not supported by evidence). However, other than describing DESC's calculation methodology generally (Order No. 2019-847 at 46-47) and generally concluding that it was appropriate for DESC to use the DRR method to calculate avoided energy rate (which no party disputed) the Commission does not reference any specific evidence in support of the adequacy or accuracy of DESC's avoided energy calculations.

The Commission's decision was in error because even without the EIC, DESC's calculation of avoided energy rates for solar QFs was based on an unreliable methodology and was unsupported by substantial evidence. The Commission also erred in rejecting SCSBA's proposed alternative technology-neutral rates, and in concluding that DESC's filings were "reasonably transparent" with regard to avoided energy rates, as required by Act 62.

**1. The Commission ignored evidence DESC's avoided energy calculation methodology was unreliable and did not yield accurate avoided cost rates.**

Both SCSBA and Power Advisory provided substantial evidence that the underlying methodology by which DESC calculated its avoided energy rates – i.e. its *implementation* of the DRR methodology – was not reliable and therefore could not be shown to fairly and accurately reflect DESC's actual avoided energy rates, as Act 62 requires.

Specifically, SBA Witness Burgess testified that there were numerous aspects of DESC's avoided cost calculations and methodologies that were "obscure and unexplained," even after receiving responses to multiple rounds of discovery requests. Tr. Vol. 2 at 523.22 (Burgess Direct). Although Mr. Burgess was able to identify some problems with those calculations based on the limited information available, he testified that this lack of clarity might conceal additional problems with DESC's methodologies and assumptions, and that in any event "it would be

impossible to independently ‘verify’ the reasonableness of Dominion’s proposed rates based on the information ... provided by the company.”

Power Advisory drew similar conclusions, noting that modeling results provided by DESC “appear to demonstrate an extreme level of modeling uncertainty around the estimated solar avoided costs,” calling into question the overall reliability of DESC’s modeling of avoided costs. Power Advisory Report at 33. The wide variability in the results of modeling runs given similar assumptions, which could not be explained with the data provided by DESC, raised similar reliability concerns. Power Advisory noted that non-solar modeling provided by DESC did not exhibit similar issues. *Id.* at 34-35. Power Advisory also agreed with SCSBA Witness Burgess’s concern that there might be additional problems with DESC’s calculations that were not discernible given the general lack of transparency in the data. Ultimately, Power Advisory concluded that DESC’s avoided energy calculations were unreliable, but that the company had not provided enough information to allow it to suggest any specific corrections:

Given our concerns with the avoided cost modeling and the relatively significant divergence in avoided costs from those projected for DEC and DEP, **we are concerned that the avoided cost estimates presented by DESC are not reliable.** Given the lack of transparency with respect to the Company’s avoided cost methodology and assumptions there aren’t specific changes to the methodology and assumptions that we can recommend.

*Id.* at 39.

Order No. 2019-847 acknowledges the SCSBA’s and Power Advisory’s concerns about transparency, and accepts Power Advisory’s conclusion that “the underlying assumptions, data, and results did not have documentation presented that would allow for accessible analysis.” Order No. 2019-847 at 20. But the Commission somehow goes on to conclude that DESC had met the requirement of S.C. Code Ann. 58-41-20(J) that “each electrical utility’s avoided cost filing must

be reasonably transparent so that underlying assumptions, data, and results can be independently reviewed and verified by the parties and the commission.”

The Commission’s errors in concluding that DESC’s filing was “reasonably transparent” are discussed below. But even if the Commission correctly concluded that DESC met its obligation to provide information about its methodology, the Commission still ignored the evidence introduced by SCSBA and Power Advisory that DESC’s underlying avoided energy cost calculation methodology was simply “not reliable.” Power Advisory Report at 39.

Act 62 requires the Commission to “treat small power producers on a fair and equal footing with electrical utility-owned resources by **ensuring that ... rates for the purchase of energy and capacity *fully and accurately* reflect the electrical utility’s avoided costs.**” S.C. Code Ann. § 58-21-40(B)(1). There was not sufficient evidence in the record (and the Commission certainly did not point to any) to justify a conclusion that DESC’s calculations *accurately* reflected its avoided energy costs, and the Commission should reconsider its decision in this respect.<sup>6</sup>

## **2. The Commission should reconsider its rejection of Intervenor’s proposal for technology-neutral avoided energy rates.**

SCSBA Witness Burgess proposed that in light of reliability problems and other issues with DESC’s avoided energy cost methodology for solar, the Commission should adopt a technology-neutral energy rate for solar QFs, because it would send more accurate price signals to producers and because it would avoid potential discrimination against solar and solar plus storage

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<sup>6</sup> It is the case that ORS concluded that, but for the EIC, DESC’s avoided energy rates were accurate. However, ORS focused its review of avoided energy costs almost exclusively on the EIC, and it did not otherwise evaluate DESC’s methodology for calculating avoided energy costs. Rather, ORS Witness Horii’s approach was to assume that the avoided energy cost calculation methodology previously used by DESC was reliable, and then to consider whether the change in avoided energy rates since 2018 could reasonably have been accounted for by changes in the inputs to the model (principally the resource plan and natural gas prices). Tr. Vol. 2 at 695.27 (Horii Direct). Mr. Horii did not attempt to verify whether the underlying model was reliable or accurate, and his observations do not refute SCSBA’s and Power Advisory’s conclusions.

QFs. Tr. Vol. 2 at 523.21-22, 83 (Burgess Direct); Tr. Vol. 2 at 527.16 (Burgess Surrebuttal). As Mr. Burgess highlighted in his testimony, Duke Energy Progress and Duke Energy Carolinas proposed (and the Commission subsequently approved) technology-neutral avoided energy and capacity rates in their avoided cost proceedings. Tr. Vol. 2 at 523.20-21 (Burgess Direct). Technology-neutral rates would be appropriate for solar, various combinations of solar plus storage, and non-solar QFs.

Power Advisory agreed with Mr. Burgess's assertions that that DESC's solar-specific avoided energy rates were potentially discriminatory against certain project configurations, as well as his assertion that "a technology neutral approach is more flexible and reflects actual value for customers in specific hours." Power Advisory further concluded that the approach to avoided cost rates suggested by Mr. Burgess modeled on the non-solar QF contract was reasonable. Power Advisory Report at 37-38.

Power Advisory did note that in implementing technology-neutral rates "it may be necessary to develop a larger number of groupings to reflect value from generators with highly correlated profiles, such as solar." *Id.* at 37. "Groupings," in this context, refers to groupings of hours (*i.e.*, pricing periods), as indicated by the discussion immediately following section of the Report, in which Power Advisory discusses Mr. Burgess's "concern that the grouping of hours is potentially biased against solar generation and that the data to support the groupings shown was not supported." *Id.* at 38.

The Commission rejected Mr. Burgess's proposal to require DESC to implement technology-neutral rates. The primary basis the Commission articulated for this decision was as follows:

Power Advisory's recommendation to use a technology neutral approach with a subset of groupings for generations with shared characteristics – like solar – appears



to be a distinction without a difference. **Whether the Commission adopts a technology neutral rate with modifications in a subset for solar, or whether we adopt a technology-specific rate from the outset; either case means having rates that reflect the generation characteristics of solar in a rate.** Given that the result is the same, it serves to further transparency in DESC's rate structure to have easily identified rates that are applicable to, essentially, the exclusive technology being installed and interconnected onto DESC's system.

Order 2019-847 at 48-49. The Commission appears to have misunderstood Power Advisory's recommendations on this issue. Specifically, the Commission interpreted Power Advisory's reference to "groupings" that would "reflect value from generators with highly correlated profiles" to mean groupings of different *rates*. Although the term "groupings" is admittedly somewhat ambiguous, it is clear both from the context (as the Commission noted, technology-neutral rates that are tailored to specific generation profiles are not technology-neutral at all) and from the discussion in the next section of the Report that "groupings" refers to groupings of hours in pricing periods.

In other words, for a technology-neutral rate to deliver the most accurate price signals to QFs (and to most accurately capture the value of QFs resources to the system), it must have a number of pricing periods.<sup>7</sup> The Commission appeared to acknowledge this fact in its Order,

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<sup>7</sup> The greater the number of pricing periods, the less averaging of marginal costs needs to happen, and the more accurate the resultant rates are. Duke Witness Snider discussed this fact in his testimony in the Duke avoided cost dockets:

The proposed avoided energy hours were determined using a methodology that considers the Companies' cost to serve customers in each hour of the day, week, and season, and appropriately reflects natural groupings of hours with similar cost attributes. The Companies' design provides additional granularity, beyond the pricing periods reflected in the presently approved purchased power schedule, to more clearly identify the hours where QF generation would be of most benefit to retail customers. ... The benefit of this design is that QFs will be provided improved price signals that are better aligned with the Companies' cost to serve retail customer generation needs.

Docket Nos. 2019-185-E and 2019-186-E, Rebuttal Testimony of Glen Snider (Oct. 2, 2019) at 38-39. Intervenors understand that Mr. Snider's testimony is not evidence in this docket, but cites it to provide additional insight on this issue.

noting that rate structures with broad pricing periods create a “significant” risk of inaccuracies due to broad pricing periods. Order No. 2019-847 at 26.<sup>8</sup>

Mr. Burgess offered testimony on this issue in the Duke avoided cost docket, where he recommended that the Commission approve rate with eleven pricing periods (as opposed to Duke’s proposed nine) in order to more accurately capture the value of QF resources to the system. Docket Nos. 2019-185-E and 2019-186-E, Direct Testimony of Ed Burgess (Sept. 11, 2019) at 39-40. Unfortunately, because of DESC’s failure to provide hourly cost data or marginal cost data, Mr. Burgess was unable to recommend alternative time periods (i.e. “groupings” of hours) for DESC rates. Tr. Vol. 2 at 523.27, 29 (Burgess Direct); Tr. Vol. 2 at 527.6 (Burgess Surrebuttal).

The Commission also asserted that “calculating a single [technology-neutral] QF avoided cost value as Witness Burgess suggests, ... would result in customers having to bear excessive costs[.]” However, there is no evidence in the record that the technology-neutral rates proposed by Mr. Burgess actually exceed DESC’s avoided cost, for solar or other QFs. And in fact, as discussed above, both Power Advisory and SCSBA concluded that DESC’s methodology for calculating solar-specific avoided cost rates was unreliable (as opposed to its calculations of non-solar avoided cost rates, which while non-transparent did not suffer from all the same reliability problems as the solar-specific rates). Thus, there is no basis for the claim that customers would bear “excessive costs” if the Commission were to approve technology-neutral rates.

Finally, Intervenors note that the Commission’s conclusion that it would be “inappropriate” to adopt technology-neutral avoided cost rates is completely at odds with its decision in the Duke Energy Progress and Duke Energy Carolinas avoided cost cases, in the Commission approved

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<sup>8</sup> Unfortunately the Commission’s response to DESC’s failure to justify its use of broad pricing periods was not to demand that DESC provide accurate and supportable rates in this proceeding (as required by Act 62), but simply to suggest that “additional justification for pricing periods should [not shall] be presented in future filings.” Id.

Duke's proposed technology-neutral rates for avoided energy and capacity. Docket Nos. 2019-185-E and 2019-186-E, Commission Directive (Nov. 15, 2019) at 2-4. It would be inconsistent and nonsensical for the Commission to draw the opposition conclusion about the appropriateness of technology-neutral rates here. Accordingly, the Commission should reconsider its decision to reject SCSBA's proposed technology-neutral avoided energy rates, and instead approve the use of a technology-neutral rate for all QFs, as well as SCSBA's proposed technology-neutral avoided energy rates for the Standard Offer.

**3. The Commission should reconsider its conclusion that DESC's avoided cost filings were "reasonably transparent" with respect to its avoided energy calculations.**

The Commission also should reconsider its conclusion that DESC met its transparency obligation under Act 62. There were two bases for this conclusion: first, that SCSBA and other parties "were able to present alternative avoided cost values and methodologies using the information provided by DESC"; and second, that no motion to compel had been brought to the Commission. Order No. 2019-847 at 91-92.

As an initial matter, the Commission's conclusion that DESC met its transparency obligations is inconsistent with its endorsement of Power Advisory's concern that "the underlying assumptions, data, and results" for DESC's avoided cost calculations "did not have documentation presented that would allow for accessible analysis," and its acceptance of Power Advisory's recommendation that Dominion be required to present substantially more information about the underlying assumptions and data, such that the parties to such future proceedings may more meaningfully evaluate and analyze the methodologies and models employed by the utility, in *future* avoided cost dockets. Order No. 2019-847 at 20. Act 62 required transparency from the utilities in *this* proceeding. Its language is mandatory ("each electrical utility's avoided cost filing must be reasonably transparent..."). It does not ask the Commission to establish transparency

guidelines applicable only to future proceedings, and it doesn't authorize the Commission to give DESC a "do over" if it fails to meet those obligations now.

In any event, the fact that Intervenors were able to provide alternative rates does not mean that DESC's methodology was transparent. The only parties to propose alternative rates were ORS and SCSBA/JDA. ORS Witness Horii calculated his alternate rate simply by backing out the EIC from DESC's proposed rates and adding in his alternative VIC (Tr. Vol. 2 at 697.6-7 (Horii Surrebuttal)); and Mr. Burgess based his alternative rate on the technology-neutral rates proposed by DESC (which as Power Advisory noted did not appear to have the same modeling problems), with some adjustments. Tr. Vol 2 at 527.15 (Burgess Surrebuttal); Ex. 10. Neither of these proposals required any particular insight into DESC's calculation methodology.

It would also be grossly unfair for the Commission to infer, based on SCSBA's proposal of an alternative rate, that DESC must have met its transparency obligations. In SCE&G's 2018 fuel case, the Commission concluded that SCE&G's proposed avoided cost rates were reasonable specifically because no other party had proposed a defensible alternative rate. Order No. 2018-322(A) at p. 15 (concluding that the proposed capacity rates were reasonable at this time, in the absence of a viable alternative proposal being presented by any other party."). Although SCSBA has challenged that decision on appeal, the clear message of that Order is that the Commission saw it as incumbent on intervenors challenging the utility's rate to propose alternatives.

Nor does the Commission's conclusion that DESC met its transparency obligation because no party had brought a motion to compel to the Commission withstand scrutiny. Among other extenuating circumstances, all parties to this docket operated under significant time constraints to evaluate large volumes of complicated information, and to formulate reasoned responses to the other parties' filings. Especially where large volumes of information are involved, gaps in data

provided in discovery may not be immediately evidence, and propounding follow-up discovery requests (and waiting for responses) takes additional time. More importantly, in any contested case – to say nothing of swiftly-moving litigation where dozens of complicated issues are in play – it may not be a wise use of parties’ limited resources to litigate motions to compel, especially where (as here) those motions might not be resolved until after testimony is due. In any event, SCSBA *did* file a motion to compel that resulted in the production of additional information, but as discussed in Witness Burgess’s testimony, DESC ultimately asserted that it simply did not retain the marginal cost data that would be required to fully understand its modeling. Under the circumstances, maintaining the motion to compel would have been fruitless. Intervenors also question whether it is a wise use of the Commission’s resources to encourage parties in future avoided cost cases to litigate motions to compel over every perceived gap in data – and furthermore not to accept compromise resolutions to such motions – lest they forfeit their right to contest the transparency of the utility’s cost calculation.

#### **4. Request for ruling on reconsideration**

As discussed above, the Commission erred in: (1) concluding that DESC’s avoided energy cost rates, as modified by ORS, accurately represented their avoided cost of energy; (2) rejecting Intervenors’ proposed technology-neutral avoided energy rate; and (3) concluding that DESC’s avoided cost filings were “reasonably transparent” as required by Act 62. On reconsideration, Intervenors submit that the Commission should reject DESC’s avoided energy rates as well as ORS’s proposed alternative rate, and adopt as an alternative the technology-neutral avoided energy rates.

If the Commission declines to reconsider its conclusion regarding Intervenors’ proposed technology-neutral rates, then as an alternative the Commission may reinstate the avoided energy

rates approved by the Commission in the 2018 fuel case. As discussed above, given the limited resources of the parties and the Commission, and the demands of implementing the other provisions of Act 62, it would not be prudent to order rehearing on this issue as a remedy for DESC's failure to meet its burdens under Act 62.

## **B. Avoided Capacity Costs**

In its Order, the Commission adopted the recommendation of Power Advisory regarding the solar capacity value that should be applied in the calculation of avoided capacity costs. Order No. 2019-847 at 21. The Power Advisory recommendation was derived from the alternative Effective Load Carrying Capability ("ELCC") analysis performed by DESC Witness Lynch, which DESC asserted resulted in a 4% capacity value for solar. *Id.* Power Advisory agreed with ORS Witness Horii and SCSBA Witness Burgess that solar provides capacity even in the event it does not generate during the system peak load hour. Power Advisory Report at 42. However, Power Advisory ultimately adopted the position presented by DESC Witness Lynch that the application of the ELCC should only apply to the incremental solar with signed PPAs above the 1,000 MW threshold used in the analysis. *Id.* This was contrary to the testimony of ORS Witness Horii that using the ELCC method, it would be appropriate for solar facilities to receive an avoided capacity rate based on 24% of their nameplate capacity. Tr. Vol. 2 at 695.35 (Horii Direct). ORS Witness Horii further stated that even using DESC's method of adding 500 MW to calculate solar capacity, an 11.8% solar capacity rate should be applied for solar projects that come online after the first 500 MW tranche. *Id.* at 36-37. Indeed, Witness Horii stated that "[p]roviding a credit less than calculated for a rate specific to solar generators would be unfair to these small power producers and violate the nondiscriminatory guideline of Section 58-41-20(A) of Act 62." *Id.* at 695.35.

The Commission's adoption of Power Advisory's 4% ELCC recommendation is discriminatory against future QF solar in that it assumes the future construction of solar facilities that may or may not materialize. Order No. 2019-847 at 35. It is not realistic to assume all unconstructed projects with a PPA will be built given the significant risk associated with solar project development, as testified to by SCSBA Witness Downey. Tr. Vol. 2 at 555.8 (Downey Direct). Given the Commission's rationale for preferring an ELCC value that more closely reflects the solar capacity that is already in place (*Id.* at 35), the Commission should have adopted ORS's recommendation of an 11.8% ELCC based on solar that was already constructed. Tr. Vol. 2 at 695.37 (Horii Direct). ORS Witness Horii recommends that an ELCC value of 11.8% be adopted because the amount of actual operational solar on the DESC system is much closer to 500 MW than the 1,048 MW of solar currently under contract. *Id.* It is exceedingly unlikely that all of the roughly 500 MW of unconstructed projects that currently have PPAs will actually become operational. If even a handful of larger projects were to be cancelled, then the Commission's adoption of a 4% ELCC based on 1,048 MW of solar, rather than the ORS recommended 11.8% ELCC based on existing conditions, would prove to be extremely punitive and discriminatory towards potential future projects, which would see an already low avoided capacity value of \$3.79 / MWh, as proposed by ORS, drop to around \$1.25 / MWh, as adopted by the Commission. In an exceptionally low-cost environment such as South Carolina's current solar market, that difference in value is significant from a project finance perspective.

Therefore, Intervenor request the Commission reconsider its decision to apply the 4% ELCC solar capacity value rate recommended by Power Advisory which, as described above, discriminates against solar facilities, and instead apply the 11.8% value recommended by ORS in this proceeding.

### C. Integration Charges (VIC / EIC)

In its Order, the Commission rejected DESC's proposed VIC and EIC, concluding that the methodologies used to support both charges were unsound. The Commission adopted the recommendation of Power Advisory, which found that the VIC and the EIC "are insufficiently supported by the evidence" and that "[t]he data and analysis on which solar intermittency risks are estimated are inappropriate." Order No. 2019-847 at 54-55. Further, Power Advisory concluded that "[i]t is unclear whether the risk thresholds implicitly used in the estimates of solar integration costs are appropriate" and "[t]he modelling of additional required reserves for both the VIC and avoided costs is significantly different from DESC's actual practices for establishing reserves." *Id.* Power Advisory also stated that "[t]here has been inadequate consideration of alternative ways of providing additional reserves...which might be cost-effective when multiple revenue streams are considered...." *Id.* at 56.

Rather than rejecting the VIC and EIC outright, however, the Commission accepted the recommendation of Power Advisory to adopt an "interim" VIC of \$2.29 "until such time as the integration study has been completed and the results implemented." *Id.* The Commission stated that the "interim" \$2.29 VIC was "a reasonable balance of risk and costs, especially given [Witness Horii's] other concerns over the Navigant costs being biased upward" and that this outcome was "just and reasonable to customers, consistent with PURPA and FERC regulations and orders, non-discriminatory to QFs, and serve to reduce the risk placed on the using and consuming public." *Id.* The Order authorized DESC to collect the integration charge retrospectively from existing projects, back to May 2019 based on a one-page Directive Order issued in April 2019. *Id.* at 95.

Despite the Commission's characterization of the charge as "interim," it appears to be fixed for the term of the contract for those solar projects with existing PPAs subject to the VIC, as well



as for any solar project that executes a PPA before the integration study is finalized. It does not appear to be subject to adjustment based on the results of the forthcoming integration study.

The Order also failed to address Intervenor's request that DESC be ordered to propose for Commission approval VIC mitigation options and that solar facilities subject to the VIC have a reasonable opportunity to implement such measures before the VIC is imposed.

The Commission's decision will have a significant and immediate impact on new and existing solar projects in South Carolina. It will saddle new and existing solar projects with a charge of \$2.29 per MWh even if the forthcoming integration study yields a lower charge, which testimony in this proceeding has indicated it is likely to do.<sup>9</sup> The VIC will compound the financing problems already posed by the unreasonably low avoided cost rates approved by the Commission for DEC. The detrimental result to both new and existing solar facilities is contrary to the intent of Act 62 to encourage solar energy development in the state, and it creates significant business risk and financial uncertainty for the solar industry.

With respect to projects with existing PPAs that will be subjected to the VIC, this new charge represents a retrospective and previously unknown and unknowable fee that will have severe financial impacts on project owners, and in some cases, fatal impacts on projects. While all solar projects with PPAs that include the VIC language will be impacted, the effects will be

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<sup>9</sup> As discussed above, all parties who evaluated DESC's proposed VIC and EIC found substantial problems with the methodologies used to derive the proposed charges. ORS Witness Horii reached his recommended \$2.29 VIC by adjusting the "forecast uncertainty" used in the Navigant study, which resulted in a 36% decrease in the VIC. Horii Direct at 17-18. However, Witness Horii did not address other shortcomings identified by parties. This was noted specifically by Power Advisory which stated that it did not support the "specific calculations [Witness Horii] used to arrive at \$2.29/MWh, because it is based on Navigant's analysis, which is flawed in several ways, *only one of which Mr. Horii attempts to correct.*" Power Advisory Report at 24 (emphasis added). SCSBA Witness Burgess similarly identified flaws with the Navigant study, and he corrected for a broader list of deficiencies, ultimately recommending a \$0.96 VIC. Burgess Direct at 92. CCL/SACE Witness Stenclik identified overly stringent reserve requirements, a failure to evaluate less costly methods of integrating renewables, and the flawed approach of targeting a single generation type – solar. Witness Stenclik did not recommend a specific alternative VIC number but stated that DESC's proposed VIC was "unnecessary and excessive". Tr. Vol. 2 at 629.7 (Stenclik Direct).

substantially harsher for projects that have already begun construction or that plan to begin construction in the near future. Projects that have begun construction have already invested up to 100% of the capital required for a utility-scale solar facility (which can be up to \$100 million for a larger project). In order to recover that up-front investment, project owners rely on revenues over the life of the PPAs, and the vast majority of that revenue is used to pay back the up-front cost of the system. The imposition of the \$2.29 VIC on these projects would erode the margins of these under-construction projects and, in some cases, may cause project owners to cancel construction and bear substantial financial losses. The cancellation of such projects would also eliminate the construction jobs associated with these projects as well as the long-term tax revenue that would accrue to the communities where those projects would be located. The retrospective VIC would also impose significant commercial consequences on the owners of existing, operating solar facilities, who would lose a meaningful portion of project revenue as a result of the \$2.29/MWh charge. While fully constructed facilities would be unlikely to shut down entirely, project owners would bear these losses, including the potential of being required to sell these projects at a financial loss.

### **1. The Commission Should Reconsider the “Interim” VIC of \$2.29/MWh**

The Commission’s decision to adopt an “interim” VIC of \$2.29/MWh should be reconsidered, for several reasons.<sup>10</sup>

First, the charge is not supported by evidence and does not meet the statutory requirement that avoided cost rates “fully and accurately” reflect the utility’s avoided costs. S.C. Code Ann. § 58-41-20(B). Although ORS and Power Advisory recommended the adoption of a \$2.29/MWh

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<sup>10</sup> For purposes of this Motion, Intervenor refers to the VIC and the EIC collectively as the “VIC.” This is consistent with the Commission’s Order imposing a \$2.29 integration charge both retrospectively on projects with existing PPAs and prospectively on any future PPAs, and the Intervenor’s Motion addresses and applies to both the retrospective VIC and the prospective EIC.

VIC as an “interim” approach, it is uncontested that ORS calculated this number based on the \$4.14/MWh VIC proposed by DESC (supported by Dr. Tanner’s testimony), with a 36.2% reduction to account for a reduction in forecast uncertainty that Mr. Horii estimated at 36.2%. Order No. 2019-847 at 54.

However, Power Advisory concluded, and the Commission agreed, that the methodology used by Dr. Tanner and DESC to calculate the VIC was fundamentally flawed and unsupported by evidence, for a number of reasons beyond the forecast uncertainty issue identified by Mr. Horii. Order No. 2019-847 at 54-56. But because Power Advisory was “reluctant to recommend that there be no solar integration charge,” it recommended that the Commission adopt Mr. Horii’s recommended \$2.29 VIC for the time being. Power Advisory Report at 23-24. Power Advisory was very clear that it did not support the calculation used by Mr. Horii to derive this \$2.29/MWh figure, “because it is based on Navigant’s analysis, which is flawed in several ways, only one of which Mr. Horii attempts to correct.” *Id.* at 24. Nevertheless, Power Advisory concluded that “its magnitude is reasonable compared to the other solar integration costs proposed.” *Id.* at 14.

However, Act 62 requires more than a fair guess at what a utility’s avoided costs might be – rates must “fully and accurately” reflect those costs. ORS’s approximation does not meet that standard. The Commission itself characterized DESC’s approach (on which ORS’s proposal was based) as “simply not relevant” to understanding what level of additional operating reserves would be required to address solar intermittency. Order No. 2019-847 at 41. It further concluded that that “[t]here is an inadequate basis to determine an accurate level of additional reserves needed for integration of solar at this time[.]” *Id.* at 42. Therefore, the Commission lacked a sufficient evidentiary basis for approving the \$2.29/MWh VIC proposed by ORS. Although the Commission characterized this as an “interim” step, and further ordered an integration study to be conducted to

accurately determine the true costs of solar integration on DESC's system, the Commission appeared to fix the VIC at 2.29/MWh for the entire duration of the relevant projects' PPAs, without any possibility for adjustment.

Intervenors recognize that Act 62 requires avoided cost rates to consider the cost of "ancillary services provided by or consumed by small power producers including those utilizing energy storage equipment" (which may be read as a reference in part to integration costs). However, Act 62 also requires that "[i]n establishing standard offer and form contract power purchase agreements, the commission shall consider *whether such power purchase agreements should prohibit...*the electrical utility reducing the price paid to the small power producer based on costs incurred by the electrical utility to respond to the intermittent nature of electrical generation by the small power producer." S.C. Code Ann. § 58-41-20(E)(3)(b)(emphasis added). The General Assembly specifically required the Commission to closely scrutinize the application of any integration charge on small power production facilities, singling out integration charges amongst the vast number of contract terms and conditions the Commission was required to consider in this proceeding. The Order does not demonstrate that the Commission sufficiently considered whether to prohibit the application of integration charges in power purchase agreements, including any assessment of the substantial negative impact that the VIC will have on projects with existing PPAs subject to the VIC, and the substantial negative impact on renewable energy development in South Carolina.<sup>11</sup>

However, if the Commission is reluctant to adopt no integration charge at all, Intervenors submit that the Commission should adopt the \$0.96/MWh VIC suggested by SCSBA Witness

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<sup>11</sup> SCSBA emphasizes that the existing PPAs containing the VIC language do not mandate that a VIC be applied; the language simply states that in the event that there was a "change in any applicable law", the project owner would be responsible for paying a VIC. It is entirely in the Commission's discretion whether or not to impose a VIC retroactively on existing PPAs.

Burgess in his testimony, to be fixed for the duration of (1) existing PPAs with the VIC language and (2) any PPA executed prior to the next avoided cost proceeding. Like Mr. Horii's estimate, Mr. Burgess's proposal is based on the Navigant methodology; however, unlike Mr. Horii's estimate it attempts to correct several of the problems identified with the Navigant calculation, including correcting for DESC's consideration of operating reserve changes during all hours rather than only hours when solar is generating; correcting for DESC's volatility profile due to geographic diversity; modeling DESC as a member of the Eastern Interconnect rather than as an operational island; applying hourly and sub-hourly solar forecasts; and improving intra-hour dispatch. Tr. Vol. 2 at 523.92-93 (Burgess Surrebuttal).

As an alternative, if the Commission concludes that this alternative calculation also lacks sufficient evidentiary support, Intervenors propose that the Commission adopt the \$2.29/MWh proposed by ORS, but *actually* do so on an interim basis (as opposed to setting a fixed \$2.29 VIC for the duration of projects currently party to PPAs with DESC). Specifically, the VIC imposed on any project (and the charges collected or deducted from PPA payments by DESC on a retrospective basis) should be subject to downward adjustment based on the results of the integration study authorized by Act 62 and ordered by the Commission.

However, it is essential that any such "interim" approach must not create the possibility of an open-ended *upward* adjustment of the VIC based on the results of the integration study. As discussed by Witnesses Chilton and Levitas, revenue certainty is an essential requirement for the financing of solar projects. Tr. Vol. 2 at 462.4-7 (Chilton Direct); Tr. Vol. 2 at 451.10 (Levitas Direct). Any possibility that the VIC for a project might be adjusted upward would almost certainly prevent further solar projects from obtaining financing until the VIC amount was finally settled. Further, solar projects with *existing* PPAs have faced substantial uncertainty since DESC's

initial request to impose the VIC in early 2019, including facing interconnection and land payment deadlines, which may require developers to cancel projects that are unable to make payments without further price certainty. The potential for upward adjustment would increase this uncertainty to the serious detriment of many projects with existing PPAs.

While Intervenors submit that the \$2.29 VIC would have a substantially negative impact on solar energy projects in DESC's service territory, the knowledge that the final VIC would not *exceed* \$2.29 would at least provide certainty for any solar project owners who were able to proceed with project development in the face of this additional charge.<sup>12</sup> ORS Witness Horii recommended this approach with respect to the Duke Energy proposed SISC, suggesting that the Commission adopt his recommended SISC but that the SISC could be adjusted downward pending the completion of an integration study. Docket Nos. 2019-185-E and 2019-186-E, Direct Testimony of Brian Horii (Sept. 11, 2019) at 23 (recommending a SISC of \$1.10 (DEC) and \$2.39 (DEP) "be adopted as upper limits for solar integration service charges")(emphasis in original). This approach with respect to the VIC would be a reasonable and appropriate outcome in light of the "interim" charge approved by the Commission, the substantial impact of this novel VIC on solar energy developers, and the need for further assessment of the issue through the completion of the integration study.

## **2. The Commission Should Grant Reconsideration and Require DESC to Propose VIC Mitigation Options.**

The Commission's Order also failed to consider the ability of a solar facility to mitigate the need for a VIC. SCSBA Witness Burgess specifically recommended that "the integration charge should be able to be mitigated through appropriate dispatch of solar, storage, or other QF

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<sup>12</sup> Intervenors again emphasize that the imposition of the \$2.29 VIC will likely prevent the continued development and construction of solar projects and will prevent solar project developers from entering into new PPAs.

technologies.” Tr. Vol. 2 at 523.91. His suggestion was consistent with the Commission’s approval, in the Duke avoided cost dockets, of the stipulation between Duke Energy and certain intervenors regarding Duke’s Solar Integration Services Charge (“SISC”) which expressly prohibits the imposition of the SISC on projects that are able to mitigate. Docket Nos. 2019-185-E and 2019-186-E, Partial Settlement Agreement (Oct. 21, 2019) at 3 (“Duke Energy Settlement”).

In addition to limiting the application of the SISC only to future projects rather than imposing it retrospectively on projects with existing PPAs, the Duke stipulation provided that the SISC would not be imposed on solar facilities that agree to “operate in a manner that materially reduces or eliminates the need for additional ancillary service requirements incurred by the utility, including but not limited to QFs equipped with battery storage.” Duke Energy Settlement at 3. These “controlled solar generators” would be relieved of an obligation to pay the SISC, and Duke filed proposed mitigation protocols in November which are currently being reviewed by parties.

The opportunity for solar facilities to mitigate the SISC before it is imposed represents good public policy for the implementation of a novel, complex, and significant new concept and charge in South Carolina. This is particularly true for projects with existing PPAs that would now be subject to a previously unknown VIC which, as described above, will significantly impact these projects. A VIC should not be imposed on projects until the Commission has approved protocols under which solar facilities have the opportunity to mitigate the imposition of the VIC.

This would be a reasonable and appropriate outcome given the significance of the VIC on future solar energy development in South Carolina, the novelty of the charge, and, for projects with existing PPAs that are subject to the VIC, the retrospective nature of this previously unknown and unknowable charge. If a final VIC is approved, solar projects with existing contracts subject to the VIC would pay this charge for the duration of their contracts, unless the Commission

determines otherwise, and temporarily staying the imposition of the VIC pending the integration study and the development and approval of mitigation measures would appropriately balance the equities at issue. The balance of interests in this case favors staying the imposition of a VIC until mitigation measures have been finalized and solar facilities subject to the VIC have had a reasonable opportunity to implement the mitigation measures.

If the Commission is not persuaded that it is appropriate to grant the relief requested herein, Intervenor request limited rehearing to allow parties to introduce additional evidence of the severe adverse economic impact that the Commission's interim VIC will have on solar developers and their financing parties if the VIC is applied retrospectively and impacted solar facilities are not afforded the opportunity to mitigate the VIC.<sup>13</sup> Intervenor do **not** request rehearing on broader issues related to the VIC, both because it would impose severe burdens on the parties, and also because it would compound the problem of revenue uncertainty and financing difficulties, especially for existing projects that may be under financing and delivery deadlines.

**D. The Commission Should Reconsider its Rejection of Intervenor's Proposals for PPAs with Terms Longer than Ten Years.**

The evidence in the record supports reconsideration of the Commission's decision to limit minimum PPA terms to 10 years as the Commission was granted full authority and flexibility to make such a finding.

Act 62 requires DESC to offer PPAs with a minimum term of ten (10) years and gives this Commission the authority to approve terms longer than 10 years **to promote** South Carolina's policy of **promoting** renewable energy. S.C. Code Ann. § 58-41-20(F). This Commission is expressly authorized to "approve commercially reasonable fixed price power purchase agreements with a duration longer than ten years, which must contain additional terms, conditions, and/or rate

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structures as proposed by intervening parties and approved by the commission, including, but not limited to, a reduction in the contract price relative to the ten year avoided cost.” *Id.* “The avoided cost rates applicable to fixed price power purchase agreements entered into pursuant to this item shall be based on the avoided cost rates and methodologies as determined by the commission pursuant to this section”. Those rates were not approved until after the close of the evidentiary hearing in a proceeding under the Energy Freedom Act. *Id.*

Act 62 provides that intervenors may “propose” additional terms, conditions, and/or rate structures for PPAs longer than ten years in avoided cost proceedings, but it does not specify any procedure for doing so. Act 62 was never intended to handcuff the Commission or prescribe some absurd requirement for Intervenor so that all details of any PPA in excess of 10 years would have to be drawn out for approval during the hearing. Nor did the procedural orders issued by the Commission in this case provide such a procedure, or require that such proposals be entered into evidence (as opposed to, for example, being treated like motions, which must be supported by evidence but are not themselves evidence).

The fact that the Commission erred by determining that it did not have the authority to set tenor in excess of 10 years due to a tortured reading of the statute or by the Commission’s assertion that evidence supporting such tenor was lacking from the record is clearly erroneous as further demonstrated by the testimony proffered by JDA Witness Rebecca Chilton and by the Report issued by the Commission’s own independent third-party consultant, Power Advisory LLC (“Power Advisory”). Chilton offered ample testimony that a term in excess of 10 years is requisite for any projects to receive financing in South Carolina and specifically **proposed, on behalf of the intervenors**, that the Commission set the tenor of PPA contracts at a minimum of fifteen (15) years with appropriate conditions as set forth in SC Code Ann. § 58-41-20(F)(1) to facilitate the

opportunity of QFs to obtain financing in South Carolina. Hearing Vol. 2 at 459. Chilton noted in her testimony, by citing to the exact language of the statute, that setting the “additional terms” was within the Commission’s discretion and further showed that it was not possible to propose other terms absent an avoided capacity and cost rate. *Id.* Chilton even specifically **proposed that, in order to meet the high standard for encouragement of renewables set by the legislature, that the Commission direct that the terms of DESC’s PPAs be set between 15 and twenty (20) years, and that some PPAs be approved for longer than 20 years, all with the required statutory conditions as decreed by the Commission.** Tr. Vol. 2 at 460.

Power Advisory noted that “[c]ontract length was an important issue in this proceeding, **with a number of intervenors arguing that contract lengths longer than 10-years were essential if QFs were to secure regularly-available market-rate financing.**” Power Advisory Report at 50. **Power Advisory specifically noted that JDA Witness Chilton recommended terms of a minimum of 15 years and proposed PPAs with terms longer than 15 years as a means to promote renewable energy in South Carolina.** *Id.* Power Advisory then went on to inform the Commission that Georgia had an average price of **\$36/MWh for 30-year contracts** in its latest 510 MW RFP and that North Carolina, in 2019, contracted 550MWs of solar projects for an average price of **\$38/MWh with 20 year terms.** *Id.* at 51. Power Advisory concluded that **“without higher longer contract length, the solar industry would not be able to finance PURPA projects in South Carolina”.** *Id.* Power Advisory even went on to offer an illustration for this Commission to simplify the concept that successful financing of projects in North Carolina and Georgia have required 20-30 year contracts with prices, on average, of \$36-\$38 per MWh. *Id.* This Commission erred when it willfully ignored its statutorily-created, third-party consultant’s

evidence and opinion as to 10 year terms being insufficient **unless the PPA price (Avoided Rate) is set in excess of \$40. *Id.***

If the Commission adopts the avoided energy rates proposed by the SCSBA but continues to find insufficient evidence in the record to support that minimum lengths for PPAs be set in excess of 10 years, this commission should hold a rehearing as to contract term length as the commission's interpretation of the requirements for proposed PPAs in excess of 10 years under s. C. Code ann. § 58-41-20 was not known to intervenors at the time of the evidentiary hearing and evidence was not available to satisfy that interpretation at the time of hearing.

Intervenors assert that the record fully supports reconsideration as to minimum term of length on PPAs in being set in excess of 10 years, however should this Commission disagree with that contention then Intervenors request this Commission hold a rehearing on the issue of tenor. The rehearing on tenor should **only** serve to effectuate the legislative intent **if** the Commission rejects DESC's rates as filed for lack of transparency, adopts the avoided energy and capacity rates proffered by SCSBA, or adopts the \$40 or greater avoided cost threshold put forth by Power Advisory. At that point evidence could be introduced as to a decrement to a set avoided cost. Absent one of those caveats, a longer term PPA will be no more financeable at the unsupported rates approved by the Commission than would be the 10 year term as set by the Commission in its Order.

It is worthy to note that this tortured reading of the statute as to what was required for the Commission to set tenor in excess of 10 years was put forth, not in this docket, but at the conclusion of evidence in Docket Nos. 2019-185-E and Docket Nos. 2019-186-E. This led to an absurd result which fails to effectuate the intent of the legislature in passing the Energy Freedom Act. If the

Commission fails to reexamine this interpretation then the Intervenor should be granted a rehearing on tenor as this reading of the statute was not known to any party at the time of hearing and, thus, evidence was not available to satisfy this interpretation. The Commission could hear testimony from Intervenor's witnesses as to what other terms and conditions are appropriate now that Intervenor has an avoided cost to use in their evaluations and proposals. Applicant could have the right to cross-examine and engage in discovery, although applicant failed to serve any discovery on or cross-examine JDA Witness Chilton in the previous proceedings, which further demonstrates that rehearing is not a necessity rather reconsideration is appropriate in all matters addressed in this Petition.

The failure to adopt the proposals of Intervenor as they relate to contract tenor beyond 10-year terms, as allowed for by Act 62, compromises the ability of solar projects to attain financing while further undermining the intent of Act 62 to provide for nondiscriminatory and fair and equal treatment of small power producers ("SPPs") as compared to the state's investor owned utilities.

When a utility builds a new power plant it receives cost recovery for the lifetime of that plant. That typically means around 40-years for a natural gas plant.<sup>14</sup> Although a solar facility can be expected to operate for over 30-years, this Commission has limited cost recovery certainty to a mere 10-years. This neither places an SPP on equal footing with utility resources, nor does it promote the state's policy of encouraging renewable energy. Rather, it limits the pool of investment options available to an SPP, even under conditions where rates are materially higher than those approved for DESC in Order No. 2019-847. This discriminatory treatment of SPPs not only deprives DESC customers of the benefits of solar, it also undermines the Commission's

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<sup>14</sup> Direct Testimony of David Doss, Duke Energy Progress, LLC, Public Service Commission of South Carolina Docket No. 2016-227-E at Appendix D-2.

statutory obligation to reduce risk to customers and, instead, further exposes those customers to risk from utility-owned generation.

Regarding Commissioner Ervin's Concurrence on the implications of contract length and the unpredictability of rates beyond 10-years, it should be understood that Duke Energy's competitive solicitation program in North Carolina is subject to a *20-year avoided cost calculation* that acts as a ceiling for bids. As a result, the average contract price for winning projects is significantly higher than Duke Energy's 10-year avoided cost rate. Act 62 actually requires a much stricter standard for contract rates beyond a 10-year term: contracts for longer than 10-years must be based on a *decrement* to the utility's 10-year avoided cost rate, as proposed by intervenors (S.C. Code 58-41-20(F)(1)). Although Commissioner Ervin claims that the North Carolina program has "eliminated the overpayment concerns that result in higher utility rates for customers," this conclusion fails to recognize that the North Carolina program results in fixed-price contracts that have higher rates than Duke's or DESC's Commission approved 10-year avoided cost rates. The overpayment risk from these contracts is a byproduct of the fact that they are fixed-price contracts. Being competitively procured doesn't alter the potential for overpayment.

## **E. CONCLUSION**

In light of the foregoing, Intervenors respectfully request that the Commission:

- i. Reconsider its approval of an "interim" VIC and EIC of \$2.29/MWh, and substitute the \$0.96/MWh VIC/EIC proposed by SCSBA Witness Burgess; or in the alternative, order that the \$2.29/MWh VIC/EIC collected by DESC from any solar QF be subjected to downward adjustment (including retroactively) if the integration study conducted in DESC's balancing area pursuant to Act 62 yields integration costs lower than that amount;

- ii. Reconsider its failure to require DESC to proposed for review and Commission approval a set of mitigation measures before imposing a VIC or EIC on any project;
- iii. Reconsider its approval (with modifications) of DESC's proposed avoided energy rates, calculations, and methodologies, and adopt as an alternative the technology-neutral avoided energy rates proposed by SCSBA Witness Burgess.
- iv. Reconsider its approval of a capacity value of 4% as proposed by DESC and recommended by Power Advisory, instead approve avoided capacity rates based on the 11.8% capacity value recommended by ORS.
- v. Reconsider its rejection of Intervenor's proposals for power purchase agreements with a duration of longer than ten years pursuant to S.C. Code Ann. § 58-41-20(F)(1), order that DESC submit form PPAs reflecting those concepts for review, comment, and approval by the Commission; and upon approval require that DESC offer to enter into such PPAs with solar QFs in compliance with Act 62.

If the Commission declines to reconsider its rejection of Intervenor's proposals for PPA terms with a duration longer than ten years, Intervenor request, in the alternative, that the Commission grant limited rehearing and allow the presentation of additional evidence by the parties on that issue.

Respectfully submitted this 19th day of December, 2019.

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